COLGATE & COMPANY JERSEY CITY PLANT: B-13
(Colgate-Palmolive Company Jersey City Plant: B-13)
48-50 Grand Street
Jersey City
Hudson County
New Jersey

HAER No. NJ-71-M

HAER
NJ
9-JERCI,
18M-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
Northeast Field Area
Chesapeake/Allegheny System Support Office
National Park Service
U.S. Custom House
200 Chestnut Street
Philadelphia, PA 19106

HAER NJ 9-JERCI, 18M-

HISTORIC AMERICAN ENGINEERING RECORD

Colgate & Company Jersey City Plant: B-13*
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Location: 48-50 Grand Street, Jersey City, Hudson County, New Jersey

Significance: B-13 was the last major component of Colgate & Company's soap kettle facilities, and operated as the core of Jersey City plant soapmaking c1916-86 along with buildings B-3 and B-4 (HAER Nos. NJ-71-F and NJ-71-G). Although not an individually significant structure, B-3 was significant as a component of the Colgate plant, and as part of the plant's oldest block.

Description: B-13 was a steel-framed, brick-clad, 5-1/2-story-plus-basement structure with gable- and flat-roofed sections. The main section of the building, on concrete spread footings, was 60.6 by 117.8 feet in plan, divided into fifteen asymmetrical structural bays by 8-by-8- and 12-by-12-inch I-beam columns encased in concrete. The columns were on about 22-foot north-south centers, but column centers east to west were, respectively, 21.5, 17.8, and 17.8 feet to accommodate larger soap kettles in the eastern bay. The columns, and corbelled brick piers in the walls, supported dense arrays of steel beams, often encased in concrete, under concrete-covered wood floors and steel kettles or tanks. Cable roof supports in 1988-89, over the three-bay-wide main building section, were timber replacements of original steel roof supports. There was a 25-foot-long, 12-foot-wide, flat-roofed stairwell on Grand Street, adjacent to and immediately west of this section, linking B-13 to B-14 (HAER No. NJ-71-N) above the alley through B Block. For about 77 feet north of the stairwell, a second-story, steel-framed, concrete-sided section of B-13 also bridged the alley (SOUTH ELEVATION TO NORTHEAST; HAER No. NJ-71, B BLOCK ALLEY TO SOUTH...; HAER No. NJ-71-D, Figure 2).

The south elevation linked the main and stairwell sections in an asymmetrical four- and five-bay facade. The four-bay ground floor included, from west to east, a wide opening with a solid wooden gate for the through-block alleyway, a pedestrian door with a double 3-pane transom and an infilled door with identical transom, a truck bay with a horizontal obscure-glass-block transom, and two pairs of pivoting 6-pane wood windows with double transoms. The five-bay second floor fenestration was an obscure-glass-block infill westernmost bay, and paired 6/6 pane pivoting wood sash, except in the fourth bay from the west

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* Capitalized references are photographs included with this documentation, or with other documentation packages for HAER No. NJ-71 and associated structures.

where all the windows were triple grouped. The third through fifth floors had obscure-glass-block westernmost bays, followed by double, quadruple, triple, and quadruple sets of similar pivoting sash. The gable apex had a triple set of pivoting windows which illuminated the mezzanine described below. The bituminous-covered roof consisted of 3-inch plank and composition sheathing. Facade detail was limited to the Romanesque-Revival-influenced, dentillated and corbelled cornice at the gabled roofline, and bluestone coping at the parapet and window sills (SOUTH ELEVATION TO NORTHEAST; MEZZANINE TO SOUTH...).

Like kettle house B-3 to the north (HAER No. NJ-71-F), to which B-13 adjoined via open doorways, the B-13 main section interior was nearly filled with soap pumps, soap kettles and tanks, and tanks for caustic, lye, and other material. The layout of the later kettle house was similar to that of the earlier building, with the second floor forming a major division between two groups of such equipment. The cement-finished basement housed three cylindrical slop or return catch tanks, and four large rectangular tanks and a pipe shop occupied the first floor. The two-level basement had 11- and 18-foot ceiling heights; ceiling heights of the floors above were between 11 and 14 feet. All of the floors were finished in cement and/or had firebrick partitions.

Kettles dominated the second through fifth floors: five 14.4-foot-diameter kettles resting on the second floor east bay, and seven 12-foot-diameter kettles on the third floor west bay, rose just above the fifth floor to conical stainless-steel covers and intake pipes for soap ingredients (FIFTH FLOOR TO NORTH...). A steel mezzanine platform above the fifth floor center bay, on 16-inch I-beams between the central longitudinal columns, supported a metal catwalk and six 11-foot-wide rectangular caustic tanks, one being 20 and five being 10 feet long (Figure 2; MEZZANINE TO SOUTH...). Other tanks for lye or soap storage filled central bays of floors two through four, including two 30-by-17-foot, 8.5-feet-high tanks on the second floor, and a two-story, 60-by-12-foot tank on the third floor (THIRD FLOOR CENTER BAY TO NORTH...; SECOND FLOOR CENTER BAY TO NORTH...).

Five pumps (two simplex steam and five electric centrifugal) in the second floor center bay moved material in and out of the soap kettles during later stages of B-13 use. Most of the western bay of this floor, apparently never occupied by tanks, was functionally part of toilet soap finishing operations on the second floor of B-14 (HAER No. NJ-71-N) after c1970. A concrete block wall along the west side of the center bay separated the western bay from the rest of B-13. Beyond this wall, the western bay was part of a space including the alley-

bridging structure between the two buildings, with openings defined by steel or concrete columns supporting concrete beams. Clerestory windows along the west line of B-13 in this space supplemented the fluorescent lighting (SECOND FLOOR CENTER BAY TO NORTH...; SECOND FLOOR WEST BAY TO NORTH).

History: William Colgate purchased the site of B-13 in 1847 and 1850. By the 1860s, an engine and boiler house covering much of the site powered early Colgate kettle-soap operations in B-3 and B-4 (HAER Nos. NJ-71-F and NJ-71-G). The boiler house apparently remained here until the construction of a larger boiler house, C-8, in 1914 (HAER No. NJ-71-T). Turner Construction Company and contractor/engineer Martin Everett built B-13 in 1916, to a Colgate design probably prepared by company engineer Warren Davey. B-13 was used primarily for kettle soap manufacture throughout its history, and was modified many times for structural repairs and as tanks, kettles, and pumps were added, replaced, or covered. Most modifications occurred c1940-55, including the 1947 replacement of all original steel roof framing with heavy timber (Figure 2). By c1970, the smaller soap kettles on the western side of the building were not heavily used, and the second-floor bay below these tanks--probably once occupied by steam soap pumps--was modified as described above for final toilet soap packaging. B-13 was demolished in 1989.

Sources:

Plans and Drawings

Colgate-Palmolive Company retains linen or blueprint copies of most, though not all, plans and drawings made for B-13. Those listed below pertain to the structure and some equipment elements; many other plans of equipment and operating hardware are not listed. As of late 1989, these documents are maintained by the engineering department in the plant's L Block (HAER No. NJ-71-SS). Future researchers should contact the company's Office of Corporate Communications at 300 Park Avenue, New York, NY 10022, for access.

Colgate & Company/Colgate-Palmolive-Peet Company/Colgate-Palmolive Company
1916a B-13 Building, Dwg. No. 1-0152 [14 numbered sheets remaining of an original 36]:

1	Basement Plan	11	Fourth Floor Framing Plan
3	Foundation Plan	12	Mezzanine Framing Plan
6	Steel Elevation	15	Section Looking North
8	West Elevation	16	Longitudinal Section "B-B"
8[sic]	First Floor Framing Plan	17	Front Elevation
9	Second Floor Framing Plan	17A	Grand Street Elevation
10	Third Floor Framing Plan	?	Grillages & Col. Bases, Schedule [no dwg. number]

1916b Arrangement of Present and Proposed Sprinkler Piping from B-13 Vault through B-13 & Driveway. Dwg. No. 2-1241

1916c Longitudinal Section MN. Dwg. No. 3-2158.

1935 2 Lye Storage Tanks B-13-2. Dwg. No. 3-2714.

1938 Plan and Elevation - S.W. corner of B-13-cellar, piping to Slop Tank and Return Catch Tank. Dwg. No. 2-2145.

1944 Hot Water Storage & Piping in B-13-B. Dwg. No. 3-3717.

1947 [Series on roof repairs and beam replacement]:
Roof Plan B-13 showing wood beams and girders that are to replace steel members. Dwg. No. 3-3955.
Section showing anchorage of roofers beams girders & columns. Dwg. No. 3-3956.
Proposed changes b-13 Bldg/Cross Sections. Dwg. No. 3-3966.

1951 Location and Details of New Caustic Storage Tank B-13 Mezzanine. Dwg. No. 2-3207.

1954 Restoration of Exterior Walls of Bldg B-13. Dwg. No. 2-3648.

1970 Floor Plan of B-13-1 and Proposed Partitions. Dwg. No. 2-6015.

1980 General roof repair [no dwg. no.; re-use of Dwg. No. 3-3955].

Everett, Martin R., Inc. [Newark, NJ]
1916 Building B-13, Colgate & Co., Contract 5585 [7 numbered drawings as follows, plus several dozen unnumbered column and beam detail drawings]:

1 Column Grillage Plan
2 First Floor Framing Plan
3 Second Floor Framing Plan
4 Third Floor Framing Plan
5 Fourth Floor Framing Plan
6 Fifth Floor Framing Plan
7 Mezzanine Floor Framing Plan

Hudson Structural Iron Works, Inc.
1958 Bldg B-13-1/New Stair to Bsm't. Job 736, Dwg. 1-1.

Turner Construction Company
1916 Colgate & Co. Bldg. B-13 [8 numbered drawings, incomplete set]:

556-1 Grand Street Elevation
556-2 West Elevation
556-4 1st, 2nd, & 3rd Floor Plans
556-5 4th, 5th & Mezz. Floor Plans
556-8 Column Details
556-8a Column Details
556-9 Stair Details
556-9a Stair Details

Interview

Colgate-Palmolive Co. engineer Theodore Mrowzinski provided information on the modification of the second floor west bay.

Bibliography

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1887 Atlas of Jersey City, N.J. Philadelphia.

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1931b Soap Boiling Department. The Pulse III,8: 10-11.

Culver, I.B.
1866 Map of Jersey City. On file, New York Public Library.

Hudson County Deed Books
1847 Vol. 10, p. 5

1850 Vol. 15, p. 661

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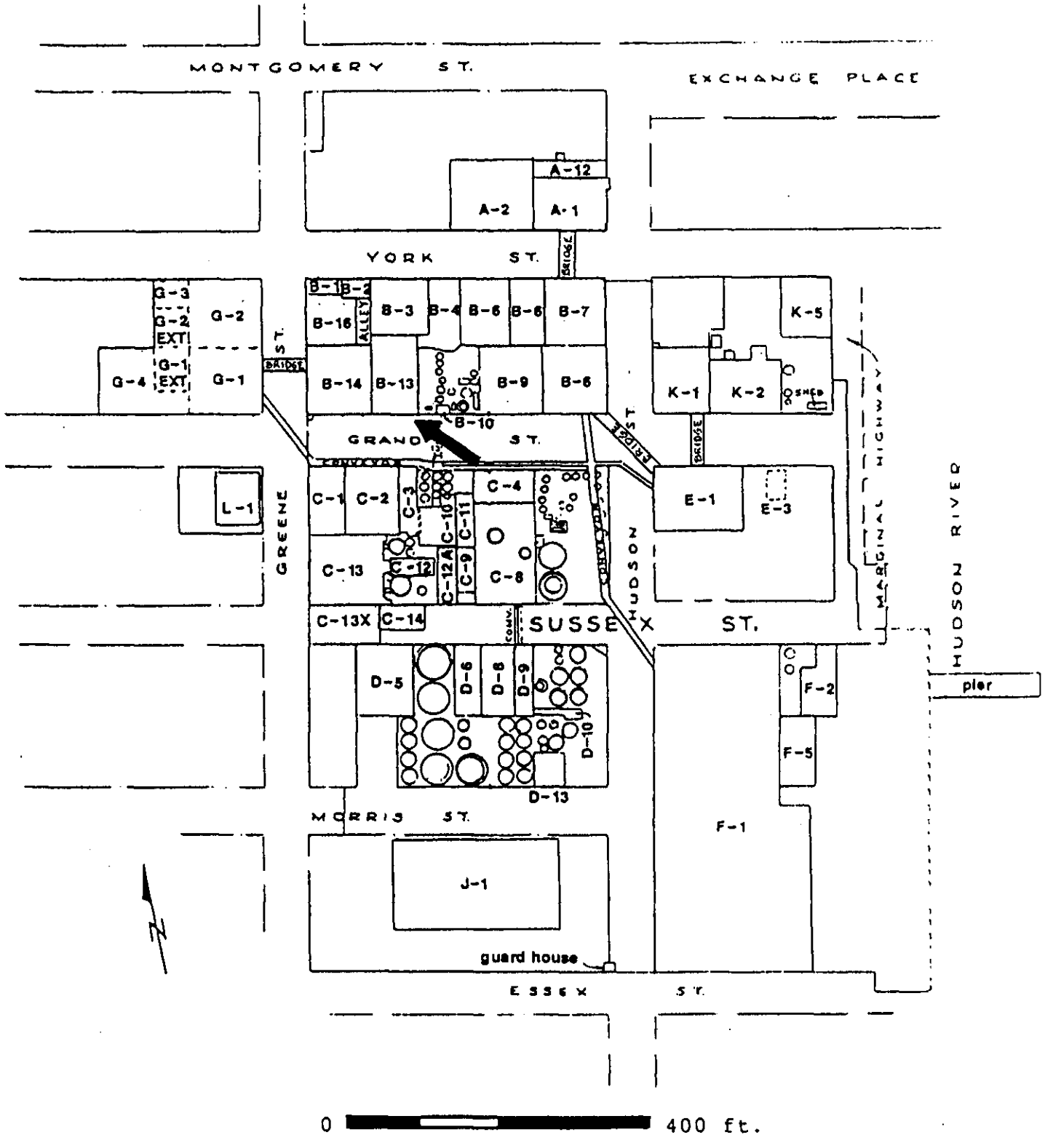

Figure 1. LOCATION OF B-13 AT COLGATE JERSEY CITY PLANT